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INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, AQUALINE, ANABSTR, ANTE, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DISSABS, DDFB, DDFU, DGENE, ...' ENTERED AT 10:13:37 ON 26 AUG 2004

77 FILES IN THE FILE LIST IN STNINDEX

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F47	1	NAPRALERT

=> file f1-f15
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 2.28 2.49

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FS ---- File Segment
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JTF ---- Full Journal Title
JTA ---- Abbreviated Journal Title
JTC ---- Journal Title Code
LA ---- Language
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NR ---- Number of Report
OS ---- Other Source
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JTA ---- Abbreviated Journal Title
JTC ---- Journal Title Code
LA ---- Language
NA ---- Name used as Subject
NC ---- Number of Contract
NR ---- Number of Report
OS ---- Other Source
PY ---- Publication Year
TC ---- Treatment Code
TI ---- Title
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OCC --- Occurrence count of search terms in answer record ENTER SORT FIELDS AND SORT DIRECTION, OR (?):end

=> d ti 15 1-10

ANSWER 1 OF 634 USPATFULL on STN L5

DNA array sequence selection TТ

ANSWER 2 OF 634 CAPLUS COPYRIGHT 2004 ACS on STN L5

- Production of L-glutamic acid by fermentation from TT coryneform bacteria with increased gene copy number encoding pyruvate dehydrogenase
- ANSWER 3 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN L_5
- Novel lysR2 gene of coryneform bacteria encoding LysR2 protein which is a ΤТ transcription regulator, useful for fermentative production of L-lysine and L-valine and as a probe detecting polynucleotides encoding LysR2; bacterium recombinant protein production vector expression in host cell, for L-amino acid, L-lysine, L-valine production
- ANSWER 4 OF 634 CAPLUS COPYRIGHT 2004 ACS on STN 1.5
- Corynebacterium thermoaminogenes genes for enzymes involved in amino acid тT biosynthesis, recombinant expression for L-amino acid biosynthesis
- ANSWER 5 OF 634 USPATFULL on STN L5
- ΤI Corynebacterium qlutamicum genes encoding proteins involved in membrane synthesis and membrane transport
- ANSWER 6 OF 634 USPATFULL on STN T₁5
- TIHuman genes and gene expression products
- ANSWER 7 OF 634 USPATFULL on STN
- Corynebacterium glutamicum genes encoding metabolic pathway proteins тт
- L5 ANSWER 8 OF 634 CAPLUS COPYRIGHT 2004 ACS on STN
- Genetic variation in adenylate kinase 1, glyceraldehyde-3-TT phosphate dehydrogenase, and glutamic-pyruvate transaminase in the marsupial Monodelphis domestica
- L5 ANSWER 9 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
- ጥፐ New isolated deformylase polypeptide encoding polynucleotide from coryneform bacteria which when present in attenuated form in L-lysine producing bacteria, results in increased fermentative production of L-lysine;

recombinant enzyme gene, vector expression in host cell, fermentation for L-amino acid production

- L5 ANSWER 10 OF 634 USPATFULL on STN
- ΤI Staphylococcus aureus polynucleotides and sequences

=> d 15 2 ibib abs

ANSWER 2 OF 634 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2000:420833 CAPLUS

DOCUMENT NUMBER:

133:57670

TITLE:

Production of L-glutamic acid by

fermentation from coryneform bacteria with

increased gene copy number encoding

pyruvate dehydrogenase

INVENTOR(S):

Kanno, Sohei; Kimura, Eiichiro; Matsui, Kazuhiko; Kurahashi, Osamu; Horino, Issei; Nakamatsu, Tsuyoshi

PATENT ASSIGNEE(S):

Ajinomoto Co., Inc., Japan Eur. Pat. Appl., 32 pp.

SOURCE:

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE -

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

KIND DATE APPLICATION NO.

DATE

A1 20000621 EP 1999-125302 19991217 EP 1010755 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO JP 1999-356035 JP 2000232890 A2 20000829 19991215 BR 9906279 Α 20010424 BR 1999-6279 19991217 CN 1999-122969 CN 1270226 20001018 Α 19991218 PRIORITY APPLN. INFO.: JP 1998-360619 A 19981218 A coryneform bacterium having enhanced intracellular pyruvate dehydrogenase activity which is obtained by increasing copy no. of a gene coding for intracellular pyruvate dehydrogenase and having L-glutamic acid-producing ability. The bacterium is cultured in a medium preferably contg. vitamin B1 at a concn. of 20 .mu.g/L or higher, so that L-glutamic acid should be accumulated in the medium, and L-glutamic acid is collected from the culture. Thus, the gene encoding the El subunit of pyruvate dehydrogenase from Escherichia coli or Brevibacterium lactofermentum is cloned into B. lactofermentum. According to the present invention, a bacterial strain having high L-glutamic acid-producing ability was been bred, and there is provided a method for efficiently producing L-glutamic acid at a low cost. REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ti 15 6-20

- L5 ANSWER 6 OF 634 USPATFULL on STN
- TI Human genes and gene expression products
- L5 ANSWER 7 OF 634 USPATFULL on STN
- TI Corynebacterium glutamicum genes encoding metabolic pathway proteins
- L5 ANSWER 8 OF 634 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Genetic variation in adenylate kinase 1, glyceraldehyde-3-phosphate dehydrogenase, and glutamic-pyruvate transaminase in the marsupial Monodelphis domestica
- L5 ANSWER 9 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI New isolated deformylase polypeptide encoding polynucleotide from
 coryneform bacteria which when present in attenuated form in L-lysine
 producing bacteria, results in increased fermentative production of
 L-lysine;

recombinant enzyme gene, vector expression in host cell, fermentation for L-amino acid production

- L5 ANSWER 10 OF 634 USPATFULL on STN
- TI Staphylococcus aureus polynucleotides and sequences
- ANSWER 11 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 Novel polynucleotide from Coryneform bacteria coding for hisC2 gene,
 useful as hybridization probe for detecting DNA to isolate nucleic acids,
 polynucleotides or genes coding for transcription regulator hisC2;
 vector-mediated gene transfer, expression in host cell and DNA probe
 for strain improvement, L-amino acid preparation, DNA microarray or
 DNA chip construction and RNA, cDNA or DNA detection
- L5 ANSWER 12 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN New polynucleotides from coryneform bacteria, which code for the mety gene, useful in the fermentive preparation of L-amino acids, e.g. L-lysine or L-methionine, and as hybridization probes for discovering genes similar to mety gene;

vector-mediated gene transfer and expression in Corynebacterium glutamicum for strain improvement

L5 ANSWER 13 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Novel Coryneform bacteria polynucleotide sequence of ilvE gene which
codes for transaminase E, the expression of which is enhanced,
particularly over expressed, for fermentative preparation of L-leucine,
L-valine:

recombinant transaminase-E production and gene transfer for strain

improvement for L-leucine and L-valine production by fermentation

ANSWER 14 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN L5 ΤI New polynucleotide from Coryneform bacteria coding for C4-dicarboxylate transporter, useful for isolating nucleic acids, polynucleotides or genes which code for C4-dicarboxylate transporter gene;

recombinant protein, vector expression in host cell, enzyme gene enhancement for L-amino acid production

L5 ANSWER 15 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN TT Novel polynucleotide from coryneform bacteria coding for phosphotransferase system enzyme I, useful for isolating nucleic acids, polynucleotides or genes which code for phosphotransferase system enzyme

> bacterium strain improvement useful for L-amino acid, especially L-lysine, production

- ANSWER 16 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN L5
- Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and TIcapable of producing L-glutamic acid, useful as a food or a medicament -
- 1.5 ANSWER 17 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and ΤI capable of producing L-glutamic acid, useful as a food or a medicament -
- L_5 ANSWER 18 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and TI capable of producing L-glutamic acid, useful as a food or a medicament -
- L5 ANSWER 19 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and TI capable of producing L-glutamic acid, useful as a food or a medicament -
- L5ANSWER 20 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
- Fermentative preparation of L-amino acids, by fermenting coryneform TТ bacteria in which gene coding for trehalose phosphatase, maltooligosyl-trehalose synthase and/or maltooligosyl-trehalose trehalohydrolase is attenuated;

vector-mediated gene transfer and expression in host cell for strain improvement and L-amino acid preparation

=> d ibib abs 15 11 16

ANSWER 11 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN ACCESSION NUMBER: 2002-13086 BIOTECHDS

TITLE:

Novel polynucleotide from Coryneform bacteria coding for hisC2 gene, useful as hybridization probe for detecting DNA to isolate nucleic acids, polynucleotides or genes coding for transcription regulator hisC2;

vector-mediated gene transfer, expression in host cell and DNA probe for strain improvement, L-amino acid

preparation, DNA microarray or DNA chip construction and

RNA, cDNA or DNA detection

AUTHOR: FARWICK M; HUTHMACHER K; BATHE B; PFEFFERLE W

PATENT ASSIGNEE: DEGUSSA AG

PATENT INFO:

WO 2002020771 14 Mar 2002 APPLICATION INFO: WO 2000-EP9037 9 Sep 2000

PRIORITY INFO:

DE 2001-1008838 23 Feb 2001

DOCUMENT TYPE: LANGUAGE:

Patent English

OTHER SOURCE:

WPĪ: 2002-351778 [38]

2002-13086 BIOTECHDS AN

AR DERWENT ABSTRACT:

> NOVELTY - An isolated polynucleotide (I) from coryneform bacteria comprising a polynucleotide sequence coding for the hisC2 gene, comprising a polynucleotide having at least 70% identity to a polynucleotide encoding a polypeptide comprising a sequence (S1) of 341 amino acids fully defined in the specification, is new.

DETAILED DESCRIPTION - (I) comprises a polynucleotide having at least 70% identity to a polynucleotide encoding a polypeptide comprising S1, a polynucleotide coding for a polypeptide comprising a sequence having at least 70% identity to S1, a polynucleotide complementary to the above polynucleotides, or a polynucleotide comprising at least 15 successive nucleotides of the above polynucleotides, where the polypeptide preferably has the activity of histidinol phosphate aminotransferase. INDEPENDENT CLAIMS are also included for the following: (1) a vector pCR2.1hisC2int, bearing a 467 base pair (bp) internal fragment of the hisC2 gene, the restriction map of which is fully defined in the specification, and which, in the Escherichia coli strain Top10/pCR2.1 hisC2int, is lodged under no. DSM13984 with the German Collection for Microorganisms and Cell Cultures; (2) an internal fragment of the hisC2 gene with a length of 467 bp; (3) a coryneform bacteria (II) in which the hisC2 gene is attenuated, preferably excluded; and (4) a coryneform bacteria containing a vector which bears parts of (I), but at least 15 successive nucleotides of the above said sequence.

WIDER DISCLOSURE - Polynucleotides consisting substantially of a polynucleotide sequence, that are obtainable by screening by hybridizing an appropriate gene library of coryneform bacterium that contains a complete gene or its part, with a probe that contains S2 or its fragment, and isolating the DNA sequence, are also disclosed.

BIOTECHNOLOGY - Preferred Polynucleotide: (I) is preferably a recombinant DNA replicable in **coryneform** bacteria, or a RNA. The replicable DNA comprises S2, at least one sequence that corresponds to S2 within the region of degeneration of the **genetic** code, at least one sequence that hybridizes with the sequences complementary to the above sequences, or a functionally neutral sense mutations in S2. The hybridization is carried out with a stringency corresponding to at most 2x saline sodium citrate (SSC).

USE - (I) is useful as hybridization probe in arrays, microarrays or DNA chips, for detecting RNA, cDNA and DNA in order to isolate nucleic acids, polynucleotides or genes that code for histidinol phosphate aminotransferase or that have a high similarity to the sequence of the hisC2 gene. (II), e.g. Corynebacterium glutamicum is useful for producing L-amino acids, in particular L-lysine, by fermentation of (II), enrichment of the L-amino acids in the medium or in the cells of the bacteria, and isolation of the L-amino acid. In (II), the genes of the biosynthesis pathway of the desired L-amino acid are enhanced, and the metabolic pathways that reduce the formation of the desired L-amino acid are at least partially excluded. The expression of polynucleotides that code for the hisC2 gene is attenuated, in particular, excluded. The catalytic properties of the polypeptide (enzyme protein) for which the polynucleotide hisC2 codes, are reduced. For the preparation of L-amino acids, coryneform microorganisms are fermented in which simultaneously one or more of the genes selected from the following group is/are enhanced or overexpressed. The genes include dapA gene coding for dihydrodipicolinate synthase, gap gene coding for glyceraldehyde-3-phosphate dehydrogenase , tpi gene coding for triosephosphate isomerase, pgk gene coding for 3-phosphoglycerate kinase, zwf gene coding for glucose-6-phosphate dehydrogenase, pyc gene coding for pyruvate carboxylase, mgo gene coding for malate quinone oxidoreductase, lysC gene coding for a feedback resistant aspartate kinase, lysE gene coding for lysine export, hom gene coding for homoserin dehydrogenase, ilvA gene coding for threonine dehydratase or the ilvA(Fbr) allele coding for feedback resistant threonine dehydratase, ilvBN gene coding for acetohydroxy acid dehydratase and zwal gene coding for the Zwal protein. One or more of the genes selected from pck gene coding for phosphoenol pyruvate carboxykinase, pgi gene coding for glucose-6-phosphate isomerase, poxB gene coding for pyruvate oxidase and zwa2 gene coding for the Zwa2 protein are simultaneously attenuated (all claimed). (I) is also useful as primers for use in polymerase chain reactions (PCR).

EXAMPLE - Chromosomal DNA from was isolated from Corynebacterium glutamicum, strain ATCC 13032.
Oligonucleotides hisC2-int1 (5'-GCAGCTTTGAGGCTTATCC-3') and hisC2-int2 (5'-AGAATTCAAACTCGCAAGC-3') were selected for the polymerase chain

reaction (PCR) based on the sequence of hisC2 gene. The primers were synthesized and PCR was carried out by standard PCR method, using Taq polymerase. A 467 base pair long internal fragment of hisC2 gene was isolated. The amplified DNA fragment was ligated into vector pCR2.1-TOPO. Escherichia coli strain TOP10 was then electroporated with the ligation mix. Plasmid-carrying cells were selected by plating out the transformation mix onto Luria-Bertani (LB) agar supplemented with 50 mg/l of kanamycin. Plasmid DNA was isolated from a transformant, and was checked by restriction with restriction enzyme EcoRI followed by agarose gel electrophoresis (0.8%). The plasmid was named pCR2.1hisC2int. The vector pCR2.1hisC2int was electroporated into Corynebacterium glutamicumDSM 5715. The selection of clones with pCR2.1hisC2int integrated into the chromosome was made by plating out the electroporation mix onto LB agar that had been supplemented with 15 mg/l of kanamycin. (36 pages)

L5 ANSWER 16 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: AAA39445 DNA DGENE

TITLE: Coryneform bacterium having enhanced pyruvate dehydrogenase

activity, and capable of producing L-glutamic acid, useful as

a food or a medicament -

INVENTOR: Kanno S; Kimura E; Matsui K; Kurahashi O; Horino I; Nakamatsu

Т

PATENT ASSIGNEE: (AJIN) AJINOMOTO CO INC.

PATENT INFO: EP 1010755 A1 20000621 32p

APPLICATION INFO: EP 1999-125302 19991217 PRIORITY INFO: JP 1998-360619 19981218

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: 2000-389401 [34]

DESCRIPTION: B. lactofermentum pdhA qene PCR primer # 4.

AN AAA39445 DNA DGENE

AB Coryneform bacteria with enhanced intracellular pyruvate dehydrogenase activity have been produced. The bacteria was produced by increasing the copy number of an intracellular pyruvate dehydrogenase gene, thereby increasing the capacity of the transformed bacteria to produce L-glutamic acid. The pyruvate dehydrogenase gene, pdhA, was derived from Brevibacterium lactofermentum and the present sequence is a PCR primer used for amplifying the pdhA gene. The PCR product was used to

amplifying the pdhA gene. The PCR product was used to produce a recombinant vector, carrying the pdhA gene, which can be used to transform coryneform bacteria. L-glutamic acid can be used as a food or a medicament.

=> d ti 15 20-100

L5 ANSWER 20 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN Fermentative preparation of L-amino acids, by fermenting coryneform bacteria in which gene coding for trehalose phosphatase, maltooligosyl-trehalose synthase and/or maltooligosyl-trehalose trehalohydrolase is attenuated;

vector-mediated gene transfer and expression in host cell for strain improvement and L-amino acid preparation

- L5 ANSWER 21 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

 Novel polynucleotide from Coryneform bacteria coding for PPGK gene,
 useful as hybridization probe for detecting DNA to isolate nucleic acids,
 polynucleotides or genes coding for transcription activator ppgK;
 recombinant Corynebacterium glutamicum production useful for L-amino
 acid production, especially L-lysine production
- L5 ANSWER 22 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 TI Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and capable of producing L-glutamic acid, useful as a food or a medicament -
- ANSWER 23 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and capable of producing L-glutamic acid, useful as a food or a medicament -

- L5 ANSWER 24 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- TI Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and capable of producing L-glutamic acid, useful as a food or a medicament -
- L5 ANSWER 25 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- TI Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and capable of producing L-glutamic acid, useful as a food or a medicament -
- L5 ANSWER 26 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- TI Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and capable of producing L-glutamic acid, useful as a food or a medicament -
- L5 ANSWER 27 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- TI Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and capable of producing L-glutamic acid, useful as a food or a medicament -
- L5 ANSWER 28 OF 634 USPATFULL on STN
- TI Method of constructing amino acid producing bacterial strains, and method of preparing amino acids by fermentation with the constructed amino acid producing bacterial strains
- L5 ANSWER 29 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- TI Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and capable of producing L-glutamic acid, useful as a food or a medicament -
- L5 ANSWER 30 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- TI Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and capable of producing L-glutamic acid, useful as a food or a medicament -
- L5 ANSWER 31 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

 TI New sigH gene from coryneform bacteria useful as a probe to isolate genes which code for sigma factor H, and overexpression of which gene in coryneform bacteria is useful for producing amino acids, especially L-lysine;
 - L-amino acid production by Corynebacterium glutamicum fermentation
- L5 ANSWER 32 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI New sigM gene from coryneform bacteria useful as probe to isolate genes
 which code for sigma factor M, and overexpression of which gene in
 coryneform bacteria is useful for producing amino acids, especially
 L-lysine;
 - L-amino acid production by Corynebacterium qlutamicum fermentation
- L5 ANSWER 33 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

 Novel sahH gene from coryneform bacteria useful as probe to isolate genes coding for adenosyl homocysteinase, and overexpression of which gene in coryneform bacteria is useful for producing amino acids, e.g. L-lysine; plasmid-mediated enzyme gene transfer and expression in Corynebacterium glutamicum for L-methionine production
- L5 ANSWER 34 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI New protein kinase B, pknB gene from corynebacteria, useful as
 hybridization probe and overexpression of which gene in corynebacteria is
 useful for producing L-amino acids, in particular L-lysine;
 Corynebacterium sp. protein-kinase gene for use as a DNA probe or in
 production of L-lysine
- ANSWER 35 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

 New polynucleotide isolated from coryneform bacteria coding for the gap2
 gene and a process for the fermentative preparation of amino acids using
 bacteria in which the gap2 gene is enhanced;
 - enhancing glyceraldehyde-3-phosphate-dehydrogenase activity in Corynebacterium glutamicum for L-amino acid production by fermentation
- L5 ANSWER 36 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 New polynucleotides isolated from coryneform bacteria coding for the clpC
 gene and a process for the fermentative preparation of amino acids using
 bacteria in which the clpC gene is attenuated;
 - vector-mediated gene transfer and expression in Corynebacterium glutamicum host cell for strain improvement and L-amino acid preparation $\,$

- L5 ANSWER 37 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

 Novel coryneform bacterium in which the gpsA gene encoding
 glycerol-3-phosphate dehydrogenase is enhanced, useful for fermentative
 production of L-amino acids such as L-lysine and L-glutamate;
 vector plasmid pJC1-mediated gpsA gene transfer and expression in host
 cell and fermentation for use in L-lysine and L-glutamic acid
 preparation
- L5 ANSWER 38 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN Preparing of L-amino acids, useful in human medicine, pharmaceutical industry, foodstuff industry and in animal nutrition, by fermenting coryneform bacteria containing attenuated malate enzyme;

 L-amino acid production via bacterium culture for use in food and pharmaceutical industry
- ANSWER 39 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

 New polynucleotides isolated from coryneform bacteria coding for the gpmB
 gene and a process for the fermentative preparation of amino acids using
 bacteria in which the gpmB gene is enhanced;

 vector-mediated gene transfer and expression in Corynebacterium
 glutamicum host cell for strain improvement and L-amino acid
 preparation
- L5 ANSWER 40 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Polynucleotide from Coryneform bacteria coding for metR and/or metZ gene,
 useful as a hybridization probe for isolating nucleic acids,
 polynucleotides or genes which code for metR and/or metZ;
 useful for L-amino acid and feedstuff production
- ANSWER 41 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

 New polynucleotide from coryneform bacteria coding for dep67 gene, where overexpression of the gene provides improved production of L-amino acids particularly L-lysine in corynebacterium glutamicum;

 plasmid vector-mediated recombinant protein gene transfer and expression in Escherichia coli, DNA primer, polymerase chain reaction, DNA microarray, DNA chip, DNA probe and fermentation for use in L-amino acid and L-lysine preparation
- L5 ANSWER 42 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN Novel coryneform bacterium in which the plsC gene encoding 1-acyl-SN-glycerol-3-phosphate acyltransferase, is enhanced, useful for fermentative production of L-amino acids such as L-lysine and L-glutamate;

recombinant enzyme, vector expression in bacterium, promoter and regulation region for food and pharmaceutical industry

- L5 ANSWER 43 OF 634 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Ethanol biosynthetic production using recombinant coryneform bacteria expressing pyruvate decarboxylase and alcohol dehydrogenase
- L5 ANSWER 44 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI New deaD gene encoding polypeptide having activity of DNA/RNA helicase,
 useful in bacteria for the fermentative preparation of L-amino acids,
 particularly L-lysine, from glucose, molasses, starch, cellulose or
 ethanol:

vector-mediated gene transfer and expression in Escherichia coli, glucose, sucrose, lactose, fructose, molasses, starch, cellulose, glycerol and ethanol fermentation and DNA microarray for use in L-lysine and L-amino-acid preparation

L5 ANSWER 45 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

New citB gene from coryneform bacteria useful as a probe to isolate genes
which code for the CitB protein, and attenuation of which gene in
coryneform bacteria is useful for producing amino acids, in particular
L-lysine;

L-amino acid production by fermentation of bacterium expressing the transcription regulator citB protein

L5 ANSWER 46 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and

capable of producing L-glutamic acid, useful as a food or a medicament -

L5 ANSWER 47 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

New polynucleotides isolated from coryneform bacteria coding for the chrA
gene and a process for the fermentative preparation of amino acids using
bacteria in which the chrA gene are attenuated;

vector plasmid pCR2-mediated chrA gene transfer and expression in Escherichia coli, fermentation, DNA primer, DNA probe, DNA chip and DNA microarray for use in L-lysine and L-amino-acid preparation, medicine and pharmaceutical industries and as feedstuff and food-additive

ANSWER 48 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

New polynucleotides isolated from coryneform bacteria coding for the luxS

gene and a process for the fermentative preparation of amino acids using
bacteria in which the luxS gene are attenuated;

vector plasmid pCR2-mediated chrA gene transfer and expression in Escherichia coli, fermentation, DNA primer, DNA probe, DNA chip and DNA microarray for use in L-lysine and L-amino-acid preparation, medicine andpharmaceutical industries and as feedstuff and food-additive

- ANSWER 49 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

 New polynucleotides isolated from coryneform bacteria coding for the chrS
 gene and a process for the fermentative preparation of amino acids using
 bacteria in which the chrS gene are attenuated;
 enhancing histidine-kinase activity in Corynebacterium glutamicum
 useful for amino acid production by fermentation
- L5 ANSWER 50 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Novel isolated citA encoding polynucleotide from coryneform bacteria,
 useful as a probe, and which, when present in attenuated form in L-lysine
 producing bacteria, results in increased fermentative production of
 L-lysine;

vector-mediated gene transfer and expression in host cell for strain improvement and L-amino acid preparation

L5 ANSWER 51 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

TI Novel meth gene from coryneform bacteria, useful for producing

L-methionine and as hybridization probes for identifying RNA, DNA or cDNA
to isolate nucleic acids or genes encoding homocysteine methyltransferase
II;

vector-mediated gene transfer and expression in host cell, Escherichia coli fermentation broth, polymerase chain reaction and DNA primer for use in L-methionine preparation useful for homocysteine methyltransferase geneisolation

L5 ANSWER 52 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Producing L-lysine by fermenting L-lysine producing coryneform bacteria
sensitive to 4-hydroxydiaminopimelate, adding L-lysine in
medium/bacterial cell, optionally isolating L-lysine/L-lysine-containing
feedstuff additive;

involving Corynebacterium glutamicum fermentation

L5

ANSWER 53 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN Novel polynucleotide from Coryneform bacteria coding for sigma factor E gene, useful as hybridization probe for isolating nucleic acids, polynucleotides or genes which code for sigE;

Corynebacterium glutamicum strain improvement for increased L-amino acid production by fermentation

ANSWER 54 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

New truB gene encoding polypeptide having activity of tRNA pseudouridine
55 synthase, useful in bacteria for fermentative preparation of L-amino
acids, particularly L-lysine, from glucose, molasses, starch or ethanol;
vector-mediated gene transfer and expression in Escherichia coli,
glucose, sucrose, lactose, fructose, molasses, starch, cellulose,
glycerol and ethanol fermentation, DNA microarray and DNA chip for use
in L-lysine and L-amino-acid preparation

TI Isolated polynucleotide from Coryneform bacteria, used for the fermentative production of L-amino acids, comprises a sequence coding for the miKE17 gene;

bacterium strain improvement and fermentation for foodstuff and pharmaceutical production

- L5 ANSWER 56 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

 New coryneform bacterium in which the mdhA gene is attenuated, preferably eliminated, useful for fermentative production of L-amino acids such as L-lysine;
 - malate-dehydrogenase gene transfer in Corynebacterium glutamicum, DNA array, DNA microarray and DNA chip useful for medicine, pharmaceutical, food industry and feedstuff
- L5 ANSWER 57 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN

 TI Preparing L-amino acids by fermenting coryneform bacteria transformed with the 6-phosphogluconate dehydrogenase gene is particularly useful to produce L-lysine and L-threonine -
- L5 ANSWER 58 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN Dehydrogenases for the synthesis of chiral compounds; a review
- L5 ANSWER 59 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 Novel polynucleotide from Coryneform bacteria coding for thyA gene,
 useful as hybridization probe for detecting DNA to isolate nucleic acids,
 polynucleotides or genes coding for thymidilate synthase;
 recombinant protein gene, vector expression in host cell, enzyme gene
 for L-amino acid production
- ANSWER 60 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 Polynucleotides from Coryneform bacteria, coding for the enzymatic cobalt reducing gene product cobW, involved in the biosynthesis of L-amino acids (e.g. L-lysine);
 plasmid pCR2.1cobWint-mediated Corynebacterium glutamicum protein gene transfer and expression in bacterium for enzyme expression reduction and enahncement for amino acid production
- ANSWER 61 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 New polynucleotides isolated from coryneform bacteria coding for the
 dep33 gene and a process for the fermentative preparation of amino acids
 using bacteria in which the dep33 gene are attenuated;
 gene overexpression in bacterium, useful for improved amino acid
 production
- L5 ANSWER 62 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 TI Preparing L-amino acids by fermenting coryneform bacteria transformed
 with the 6-phosphogluconate dehydrogenase gene is particularly useful to
 produce L-lysine and L-threonine -
- L5 ANSWER 63 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 TI Preparing L-amino acids by fermenting coryneform bacteria transformed
 with the 6-phosphogluconate dehydrogenase gene is particularly useful to
 produce L-lysine and L-threonine -
- L5 ANSWER 64 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 TI Preparing L-amino acids by fermenting coryneform bacteria transformed
 with the 6-phosphogluconate dehydrogenase gene is particularly useful to
 produce L-lysine and L-threonine -
- L5 ANSWER 65 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 TI Preparing L-amino acids by fermenting coryneform bacteria transformed
 with the 6-phosphogluconate dehydrogenase gene is particularly useful to
 produce L-lysine and L-threonine -
- L5 ANSWER 66 OF 634 USPATFULL on STN
 TI Coryneform bacteria which produce chemical compounds I
- L5 ANSWER 67 OF 634 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
- TI Molecular cloning of the Corynebacterium glutamicum ('Brevibacterium

lactofermentum' AJ12036) odhA gene encoding a novel type of 2-oxoglutarate dehydrogenase.

- L5 ANSWER 68 OF 634 USPATFULL on STN
- TI Process for the preparation of L-amino acids using coryneform bacteria which contain an attenuated mez gene
- L5 ANSWER 69 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- TI Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and capable of producing L-glutamic acid, useful as a food or a medicament -
- L5 ANSWER 70 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- TI Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and capable of producing L-glutamic acid, useful as a food or a medicament -
- L5 ANSWER 71 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Isolated polynucleotide from Coryneform bacteria, used for the
 fermentative production of L-amino acids, comprises a sequence coding for
 the msiK gene;

recombinant protein gene, vector expression in host cell, culture medium fermentation and enzyme gene useful for foodstuff and human medicine

- ANSWER 72 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

 New polynucleotide sequence encoding the sigC gene useful for preparation of L-amino acids e.g. lysine, and as hybridization probes for discovering RNA, cDNA and DNA to isolate genes which code for sigma factor C;

 L-amino acid production by fermentation of bacterium containing the sigma factor-C gene
- L5 ANSWER 73 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN Production of L-lysine, comprises fermentation of L-lysine producing coryneform bacteria resistant to diaminopimelic acid analog, enrichment of L-lysine in medium, isolation of L-lysine or its feedstuffs additive from fermentation broth;

involving culture medium optimization and fermentation

L5 ANSWER 74 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN Polynucleotide sequence encoding ndkA gene useful for preparation of L-amino acids e.g. L-lysine, and as hybridization probes for discovering RNA, cDNA and DNA to isolate genes encoding nucleotide diphosphate kinase;

plasmid vector-mediated dihydrodipicolinate-synthase gene transfer and expression in Escherichia coli and DNA microarray and DNA chip for use in L-lysine and L-amino-acid preparation

L5 ANSWER 75 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN Fermentative production of L-amino acids, especially lysine or valine, by fermenting Coryneform bacteria in which the nadA and/or nadC gene is weakened;

vector expression in bacterium host cell, fermentation and mutation for amino acid production and food

ANSWER 76 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
Preparing L-lysine or L-threonine by the fermentation of coryneform
bacteria comprises fragmenting L-lysine or L-threonine producing bacteria
where the endogenous gene that codes for transketolase (tkt) is
over-expressed;

vector-mediated gene transfer and expression in host cell for strain improvement and L-amino acid preparation

L5 ANSWER 77 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
New polynucleotides encoding glbO gene, useful as a primer for producing
DNA of genes which code for the gene product of glbO, or as hybridization
probes;

vector-mediated gene transfer, expression in host cell, DNA probe and DNA primer for strain improvement

L5 ANSWER 78 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN

TI Coryneform bacterium having enhanced pyruvate dehydrogenase activity, and capable of producing L-glutamic acid, useful as a food or a medicament -

- L5 ANSWER 79 OF 634 USPATFULL on STN
- TI Targets for therapeutic intervention identified in the mitochondrial proteome
- L5 ANSWER 80 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN Polynucleotide sequence encoding metF gene useful for preparation of L-amino acids e.g. L-methionine and for the preparation of animal foodstuffs additive from the fermentation broth;

 vector-mediated gene transfer and expression in bacterium host cell for strain improvement and amino acid preparation
- ANSWER 81 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 New polypeptides derived from 6-phosphogluconate dehydrogenase of
 Corynebacterium glutamicum used for increasing yield in fermentative
 production of useful substances e.g. L-amino acids;
 plasmid-mediated enzyme gene transfer and expression in Brevibacterium
 sp. or Microbacterium sp. for enhanced amino acid, vitamin or sugar
 production
- L5 ANSWER 82 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 TI Corynebacterium containing an amino-acid production gene comprising a
 modified promoter useful for high-yield fermentative production of amino
 acids -
- L5 ANSWER 83 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 TI Corynebacterium containing an amino-acid production gene comprising a
 modified promoter useful for high-yield fermentative production of amino
 acids -
- L5 ANSWER 84 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Fermentative production of L-threonine, useful in animal nutrition,
 comprises culturing enterobacterium with increased thrE gene activity;
 Escherichia coli fermentation containing deleted tdh gene and
 Corynebacterium glutamicum mutant thrE gene
- L5 ANSWER 85 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI New nucleic acid molecule encoding replication protein/plasmid stability
 protein, useful in cloning and expression vectors, particularly shuttle
 vectors for expression of heterologous genes in Rhodococcus species;
 1-deoxy-D-xylulose-5-phosphate-synthase cloning in Rhodococcus sp.
- L5 ANSWER 86 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 TI Corynebacterium containing an amino-acid production gene comprising a
 modified promoter useful for high-yield fermentative production of amino
 acids -
- L5 ANSWER 87 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN

 TI Corynebacterium containing an amino-acid production gene comprising a
 modified promoter useful for high-yield fermentative production of amino
 acids -
- L5 ANSWER 88 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 TI Corynebacterium containing an amino-acid production gene comprising a
 modified promoter useful for high-yield fermentative production of amino
 acids -
- L5 ANSWER 89 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN

 TI Corynebacterium containing an amino-acid production gene comprising a
 modified promoter useful for high-yield fermentative production of amino
 acids -
- L5 ANSWER 90 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 TI Corynebacterium containing an amino-acid production gene comprising a
 modified promoter useful for high-yield fermentative production of amino
 acids -
- L5 ANSWER 91 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
 TI Corynebacterium containing an amino-acid production gene comprising a
 modified promoter useful for high-yield fermentative production of amino
 acids -

L5 ANSWER 92 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN

TI Corynebacterium containing an amino-acid production gene comprising a modified promoter useful for high-yield fermentative production of amino acids -

- L5 ANSWER 93 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- TI Corynebacterium containing an amino-acid production gene comprising a modified promoter useful for high-yield fermentative production of amino acids -
- L5 ANSWER 94 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- TI Corynebacterium containing an amino-acid production gene comprising a modified promoter useful for high-yield fermentative production of amino acids -
- L5 ANSWER 95 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- TI Corynebacterium containing an amino-acid production gene comprising a modified promoter useful for high-yield fermentative production of amino acids -
- L5 ANSWER 96 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- TI Corynebacterium containing an amino-acid production gene comprising a modified promoter useful for high-yield fermentative production of amino acids -
- L5 ANSWER 97 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- TI Corynebacterium containing an amino-acid production gene comprising a modified promoter useful for high-yield fermentative production of amino acids -
- L5 ANSWER 98 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN
- TI Corynebacterium containing an amino-acid production gene comprising a modified promoter useful for high-yield fermentative production of amino acids -
- L5 ANSWER 99 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
- TI Polynucleotide sequence encoding metE gene useful for preparation of L-amino acids e.g. L-methionine and for the preparation of animal foodstuffs additive from the fermentation broth;

vector-mediated gene transfer and expression in host cell for strain improvement and amino acid preparation

- L5 ANSWER 100 OF 634 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
- TI New isolated polynucleotide encoding L-amino acids from coryneform bacteria, useful in human medicine and the pharmaceuticals industry, and particularly in animal nutrition;

vector-mediated gene transfer and expression in host cell for strain improvement and L-amino acid preparation

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L5 ANSWER 28 OF 634 USPATFULL on STN

ACCESSION NUMBER: 2004:2122 USPATFULL

TITLE:

Method of constructing amino acid producing bacterial

strains, and method of preparing amino acids by

fermentation with the constructed amino acid producing

bacterial strains

INVENTOR(S):

Asakura, Yoko, Kawasaki-Shi, JAPAN Nakamura, Jun, Kawasaki-Shi, JAPAN Kanno, Sohei, Kawasaki-Shi, JAPAN Suga, Mikiko, Kawasaki-Shi, JAPAN Kimura, Eiichiro, Kawasaki-Shi, JAPAN

Ito, Hisao, Kawasaki-Shi, JAPAN Matsui, Kazuhiko, Kwasaki-shi, JAPAN

Ohsumi, Tsuyoshi, Tokyo, JAPAN

Nakamatsu, Tsuyoshi, Kawasaki-shi, JAPAN Kurahashi, Osamu, Kawasaki-shi, JAPAN

NUMBER KIND DATE

US 2004002143 A1 20040101 US 2000-577005 A1 20000525 (9) PATENT INFORMATION: APPLICATION INFO.:

Continuation of Ser. No. WO 1999-JP5175, filed on 22 RELATED APPLN. INFO.:

Sep 1999, UNKNOWN

NUMBER DATE

JP 1998-271786 19980925 PRIORITY INFORMATION:

19980925 JP 1998-271787

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C., 1940

DUKE STREET, ALEXANDRIA, VA, 22314

NUMBER OF CLAIMS: 17 EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 3 Drawing Page(s)

LINE COUNT: 2920

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of producing coryneform bacteria having an improved amino acidor nucleic acid-productivity comprises the steps of introducing a mutation in a promoter sequence of amino acid- or nucleic acid-biosynthesizing genes on a chromosome of a coryneform bacterium to make it close to a consensus sequence or introducing a change in a promoter sequence of amino acid- or nucleic acid-biosynthesizing genes on a chromosome of a coryneform bacterium by gene recombination to make it close to a consensus sequence, to obtain mutants of the coryneform amino acid- or nucleic acid-producing microorganism, culturing the mutants and select a mutant capable of producing the intended amino acid or nucleic acid in a large amount. This method can construct a mutant capable of suitably enriching or controling the expression of an intended gene without using a plasmid and also capable of producing amino acids in a high yield, by the recombination or mutation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 93 OF 634 DGENE COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: AAA29940 DNA DGENE

Corynebacterium containing an amino-acid production gene TITLE:

comprising a modified promoter useful for high-yield

fermentative production of amino acids -

INVENTOR: Asakura Y; Nakamura J; Kanno S; Suga M; Kimura E; Ito H;

Matsui K; Ohsumi T; Nakamatsu T; Kurahashi O

PATENT ASSIGNEE: (AJIN) AJINOMOTO CO INC.

PATENT INFO: WO 2000018935 A1 20000406 98p

APPLICATION INFO: WO 1999-JP5175 19990922 PRIORITY INFO: JP 1998-271786 19980925

JP 1998-271787 19980925

DOCUMENT TYPE: Patent LANGUAGE: Japanese

OTHER SOURCE: 2000-293168 [25]

DESCRIPTION: Mutagenic primer for mutation of pdhA promoter.

ΑN AAA29940 DNA DGENE

This sequence represents a primer used to mutate the promoter sequence of AΒ the pyruvate dehydrogenase (pdhA)

gene. The primer is used in the method of the invention. The invention relates to a method for the production of a bacterial strain with improved amino or nucleic acid production. The method comprises mutating or genetically recombining the promoter sequence of an amino or nucleic acid biosynthesis gene on a

Corynebacterium chromosome, culturing the mutants and selecting for high amino or nucleic acid yield. The invention also includes

Corynebacterium strains containing a glutamic acid or arginine synthesis gene with the mutated promoter. Also included is a method for the production of L-glutamic acid by culturing an L-glutamic acid producing strain of

Corynebacterium which is tolerant to 4-fluoroglutamic acid. The methods can be used to increase the yield of amino acids such as glutamic acid and arginine by fermentative production.

(FILE 'HOME' ENTERED AT 10:13:22 ON 26 AUG 2004)

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FILE 'DGENE, CAPLUS, USPATFULL, BIOSIS, BIOTECHDS, WPIDS, EMBASE, SCISEARCH, TOXCENTER, LIFESCI, GENBANK, CABA, MEDLINE' ENTERED AT 10:16:14 ON 26 AUG 2004

L2 1681 S (PDH? OR PYRUVAT?(S)DEHYDROGENAS?) (S) (BREVI? OR GLUTAMIC? O L3

798 S L2 (S) GENE?

634 DUP REM L3 (164 DUPLICATES REMOVED)

634 FOCUS L4 1-

=> log h COST IN U.S. DOLLARS

L1

L4

L5

SINCE FILE TOTAL ENTRY SESSION